APPENDIX C

- Inventory Implementation Plan
 Stormwater Ordinance 1096
- Year 3 Major Outfall Inspection Results
 Year 4 Dry Weather Inspection Results
 Illicit Discharge Enforcement Protocol

Implementation Plan--Strategy 4.1

Use one of the retained consultants to periodically identify, locate, and gather vital data on newly constructed infrastructure after it is placed into service.

Each year, approximately 3000 new stormwater structures are built within Loudoun County. In order to keep the Stormwater Infrastructure Map and Database up to date, the County must locate and obtain basic information about those structures. The information obtained generally includes the surveyed location, structure type, pipe size and shape, flow direction, material used, and notes regarding the accuracy of the measurement data.

Actions

- 1. Obtain from the Clerk of the Circuit Court's website all maps platted within the applicable period which include stormwater related easements or significant private roadways.
 - Search the Clerk of the Circuit Court's website to find all newly recorded stormwater easements.
 - Place maps with newly created easements into an "Under Construction" file for the next field review prior to mapping no sooner than six months following recordation.
 - Include maps with significant private roadways to ensure that driveway culverts which might be in County easements, rather than in VDOT rights-of-way, are located.
 - Set aside maps with only one or two minor easements for staff mapping under Strategy 4.2.
- 2. View a current GIS map to identify large impermeable areas or areas of dense lot divisions which show no stormwater infrastructure.
 - Create and review a GIS map showing the most current aerial
 photography, the current parcel layer, and the stormwater facilities
 layer, prior to each contracted mapping session, in order to spot
 stormwater facilities that are built in easements granted to the County
 but not yet mapped.
 - Scrutinize the map for large impervious areas and areas of high lot density devoid of stormwater features.
 - Mark these areas for field review.
- Visit in the field all areas identified in the previous two actions to determine if new stormwater infrastructure is completed and ready for mapping.

- Visit sites identified as candidates for mapping to determine if the stormwater portion of the project is complete.
- The site map will be returned to an "Under Construction" file for future consideration if the stormwater facilities are not yet complete.
- 4. Create a map showing areas to be surveyed for stormwater structures.
 - Outline areas of interest that are ready for survey on a layer in a GIS database and provide the layer to a surveying consultant for new inventory mapping.
- 5. Contract with a surveying consultant to map stormwater facilities within the delineated areas and gather additional information about the facilities.
 - Direct the surveying consultant to search for all stormwater structures within the outlined areas and at the outside end of any pipe crossing the outlined boundary.
 - Direct the surveying consultant to provide the surveyed location, structure type, pipe size and shape, flow direction, material used, and notes regarding the accuracy of the measurement data.
- 6. Review, address comments, verify for database field errors, and append to the existing pipe and structure databases all survey data submitted by the surveying consultant.
 - Review any comments submitted by the surveying consultant for unusual situations that need attention.
 - Proofread the consultant's submission for database field errors such as misspellings or undefined field inputs.
 - Merge results into the existing databases.
- 7. Transfer the updated pipe and structure databases to OMAGI for inclusion into WebLogis.
 - Give OMAGI a copy of the new database after each new inventory session to act as a backup copy and to provide information for WebLogis.
- 8. Schedule newly surveyed structures for inclusion into the structure inspection system in two years.
 - Populate the inspection due date field in the database for all newly added structures with a year that is two years later than the survey.

Resources

Contract dollars needed are approximately \$50K annually. This is based on a price of \$16 per structure and approximately 3000 structures per year. It has been inflated at about 5%.

Action	FY '08		FY '09		FY '10	
	Staff Hours	Contract \$'s	Staff Hours	Contract \$'s	Staff Hours	Contract \$'s
1	83		83		83	
2	45		45		45	
3	75		75		75	
4	45		45		45	· · · · · · · · · · · · · · · · · · ·
5	15	\$50,000	15	\$53,000	15	\$56,000
6	60		60		60	
7	15		15		15	<u> </u>
8	15		15		15	
Totals	353	\$50,000	353	\$53,000	353	\$56,000

Status

This was completed as planned for FY07.

CHAPTER 1096 Stormwater Management

1096.01 Stormwater Management

1096.03 Discharges to the Stormwater

Program.

Management System.

1096.02 Maintenance of the Stormwater

1096.04 Violations.

Management System.

CROSS REFERENCES

Use of sewers; building sewers and connections - see S.U. & P.S. Ch. 1064

1096.01 STORMWATER MANAGEMENT PROGRAM.

(a) Findings.

(1) The health, safety, and welfare of Loudoun County residents requires the design, development, improvement, operation, maintenance, and oversight of a system of man-made and natural components of stormwater management infrastructure to both limit and manage the volume of stormwater to control flood events and to prevent degradation of the

County's waterways and erosion of the County's lands.

(2) Loudoun County is subject to Phase II of the Federal Clean Water Act's National Pollutant Discharge Elimination System (NPDES) permit program for stormwater discharges, administered by the Virginia Department of Environmental Quality through a General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation for Discharges of Storm Water from Small Municipal Separate Storm Sewer Systems in the Commonwealth of Virginia (9 VAC 25-750-10 et seq.). In order to comply with VPDES requirements, the County must develop a stormwater management program to reduce pollution from the stormwater drainage system to the maximum extent practicable.

(3) Properly functioning stormwater management infrastructure provides benefit to all properties within the County by directly protecting properties through control of flooding and standing water, and by reducing the impact of

stormwater flows on the County's natural environment.

(4) The Loudoun County Board of Supervisors is authorized by state law to adopt a program for local stormwater management (Code of Virginia Sections 10.1-603.1 et seq.).

(b) Establishment of Stormwater Management Program.

(1) The stormwater management program of Loudoun County is hereby established. The program shall include the design, development, improvement, operation, inspection, maintenance, and oversight of the stormwater management system.

- (2) For the purposes of this chapter, stormwater management system (also referred to as stormwater infrastructure) includes structural and natural stormwater control systems of all types including, but not limited to, open drainage channels, retention basins, wet detention basins, dry detention basins, storm sewers, conduits, pipelines, pumping and ventilation stations, bio-retention systems, and other planted stormwater management buffers, structures, and real and personal property used for support of the system.
- (3) The stormwater management system shall be designed, developed, improved, operated, maintained and overseen in accordance with all applicable Federal, State, and local laws, statutes, ordinances, regulations and policies. Applicable local ordinances, regulations and policies include, but are not limited to, the County Zoning Ordinance, Land Subdivision and Development Ordinance, the Facilities Standards Manual, The Virginia Erosion and Sediment Control Handbook, the drainage maintenance policies and programs of the County government, and all effective stormwater maintenance agreements.
- (4) Administrative Authority. The Director shall be responsible for the administration and enforcement of this chapter.
- (5) Right of Entry. The Director may, with proper identification enter, at reasonable times, upon public or private property for the purposes of inspecting and investigating conditions relating to the enforcement of this chapter, but only after obtaining consent of the owner or occupant of the private property to be inspected, which owner or occupant has the authority, under law, to authorize such entry and inspection.

(6) Inspection Warrant.

- If such consent is not obtained, for any reason, including the inability to contact or locate the person with the authority to authorize such inspection, the Director shall obtain, from a County magistrate or judge, a warrant authorizing such entry, inspection or investigation upon such private property upon a showing of probable cause, supported by an affidavit, particularly describing the place, thing or person to be inspected or investigated, and the purpose for which the inspection or investigation is to be made. Probable cause shall be deemed to exist either if reasonable administrative standards for conducting such inspection or investigation are satisfied, with respect to the particular place, thing or person, or if there exists probable cause to believe that there is a condition, object, activity or circumstance which legally justifies such inspection or investigation. The supporting affidavit shall contain either a statement that consent to inspect or investigate has been sought and refused or not received or a description of the circumstances reasonably justifying the failure to seek such consent in order to effectively enforce this chapter.
- B. An inspection warrant shall be effective for the time specified therein, not to exceed ten days, unless extended or renewed by the judicial officer who signed

and issued the original warrant, upon a showing that such extension or renewal is in the public interest. Such warrant shall be executed and returned to the judicial officer by whom it was issued within the time specified in the warrant or within the extended or renewed time. After the expiration of such time, the warrant, unless executed, shall be void. An inspection pursuant to such warrant may not be made in the absence of the owner, custodian or possessor of the particular place, thing or person unless specifically authorized by the judicial officer upon a showing that such authority is reasonably necessary to effectuate the purpose of this chapter. An inspection pursuant to this warrant shall not be made by means of forcible entry except that the judicial officer may expressly authorize a forcible entry where facts are shown sufficient to create a reasonable suspicion of a violation of any of the provisions of this chapter which, if such violation existed, would be an immediate threat to health or safety, or where facts are shown establishing that reasonable attempts to serve a previous warrant have been unsuccessful. In the case of inspection of a dwelling, prior consent must be sought and refused unless the issuing judicial officer finds that failure to seek consent is justified and that there is a reasonable suspicion of an immediate threat to public health or safety.

- C. Compliance with inspection warrants. No person shall willfully refuse to permit an inspection lawfully authorized by a warrant issued pursuant to this chapter.
- (c) <u>Definitions</u>. As used in this chapter:
 - (1) "Director" means the Director of the Department of General Services or his designee.
 - (2) "Discharge" means to dispose, deposit, spill, pour, inject, dump, leak or place by any means, or that which is disposed, deposited, spilled, poured, injected, dumped, leaked or placed by any means.
 - (3) "Dulles Greenway" means the private toll road and rights-of-way comprising a 14-mile extension of the Dulles Toll Road, connecting Washington Dulles International Airport with Leesburg, Virginia.
 - (4) "Facilities Standards Manual" means the <u>Loudoun County Facilities</u> <u>Standards Manual</u>, as amended.
 - (5) "Illicit discharge" means any discharge to the stormwater management system that is not composed entirely of stormwater, except discharges pursuant to either a VPDES permit or discharges resulting from fire fighting activities. This definition shall not include the discharges listed in Section 1096.03(a)(2) unless the County identifies such discharges as sources of pollutants to waters of the Commonwealth of Virginia.

- (6) "Industrial discharge" means discharges from any conveyance that is used for collecting and conveying stormwater and which are directly related to industrial uses as defined by the General Virginia Pollutant Discharge Elimination System Permit for Discharges of Storm Water Associated with Industrial Activity (9 VAC 25-151-10 et seq.).
- (7) "Person" means any individual, firm, corporation, partnership, association, organization or other entity, including governmental entities, or any combination thereof.
- (8) "Stormwater" means runoff from rain, snow or other forms of precipitation and surface runoff and drainage.
- (9) "Stormwater maintenance agreement" means an agreement between a private property owner and the County that establishes mutual responsibilities for maintenance of the stormwater management infrastructure where such infrastructure has uses in addition to stormwater management.
- (10) "Stormwater management system" means, for purposes of this chapter, the series of structural and non-structural stormwater infrastructure established to manage stormwater runoff and drainage. The stormwater management system includes, but is not limited to the following facilities and equipment, storm drains, catch-basins, drop inlets, pipes, open channels and ditches, dry detention facilities, wet detention facilities, mitigated wetlands, and bioretention facilities.
- (11) "Stormwater Pollution Prevention Plan" means a plan consisting of steps and activities designed to identify potential sources of stormwater pollution or contamination; and, establishing practices that will prevent or reduce pollutants in stormwater runoff.
- (12) "Virginia Erosion and Sediment Control Handbook" means the technical guide published by the Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation to meet the requirements of the Virginia Erosion and Sediment Law (Code of Virginia Sections 10.1-560 et seq.).

(Ord. 03-15. Passed 10-20-03.)

1096.02 MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM. It is the intent of this section to provide for the maintenance and repair of the County's stormwater management system to its original design capability.

- (a) Compliance with County Design Standards. All new development and redevelopment, which includes stormwater infrastructure for water quality and quantity management, shall comply with the water quality and quantity standards of the latest edition of the Facilities Standards Manual.
- (b) Maintenance of the Stormwater Management System.
 - (1) Stormwater infrastructure constructed within appropriately dedicated stormwater easements outside of Virginia Department of Transportation maintained rights-of-way, Dulles International Airport property and rights-of-way, Dulles Greenway property and rights-of-way, and the County's incorporated towns, shall be

maintained by the County to its original design capability. Notwithstanding, stormwater infrastructure maintenance associated with wet ponds/lakes that have uses in addition to stormwater management, as determined by the Director, remains with the property owner unless, on a case-by-case basis, the County assumes certain maintenance responsibilities as mutually agreed upon and detailed in a negotiated stormwater maintenance agreement between the property owner and the County.

- (2) Existing stormwater infrastructure constructed without a stormwater easement dedicated to Loudoun County must be maintained to their original design capability by the property owner. The property owner shall provide proof of compliance by submitting to the County an annual inspection report prepared by an engineer registered in the Commonwealth of Virginia detailing the condition of the infrastructure and certifying its ability to meet its original design capability or allow the County to inspect the stormwater infrastructure. If any deficiencies are detailed in the engineering report, or are found in the course of a County inspection, the property owner shall be deemed to be in violation of this chapter, subject to the provisions of Section 1096.04.
- (3) The County at its sole discretion may, following a request from the property owner, assume maintenance responsibility on a case-by-case basis for properties containing existing stormwater infrastructure constructed without a stormwater easement dedicated to Loudoun County, subject to the dedication of an easement for inspection and maintenance purposes acceptable to the County.
- (c) Failure to Maintain Private Stormwater Management Facilities. Any property owner whose property includes stormwater infrastructure for which the County has not assumed maintenance responsibilities that fails to submit evidence of proper maintenance of said facility as outlined above, or denies the County access to inspect said facility, shall be considered in violation of this chapter, subject to the provisions of Section 1096.04. (Ord. 03-15. Passed 10-20-03.)

1096.03 DISCHARGES TO THE STORMWATER MANAGEMENT SYSTEM. It is the intent of this section to prohibit the entry into public storm drainage facilities of any substance, whether solid or liquid, other than stormwater.

- (a) Discharges to the Stormwater Management System.
 - (1) It shall be unlawful to:
 - A. Cause or allow illicit discharges to the county's stormwater management system;
 - B. Discharge materials other than stormwater to the stormwater management system by spills, dumping or disposal without a VPDES permit;
 - C. Cause or allow industrial discharges into the stormwater management system without a VPDES permit; or
 - D. Violate any condition or provision of this chapter or any permit granted for stormwater discharges.

- (2) Subject to the provisions of Section 1096(a)(3) of this section, the following activities shall not be unlawful as illicit discharges under this chapter:
 - A. Water line flushing;
 - B. Landscape irrigation;
 - C. Diverting stream flows or raising groundwater;
 - D. Infiltration of uncontaminated groundwater;
 - E. Pumping of uncontaminated groundwater from potable water sources, foundation drains, irrigation waters, springs or water from crawl spaces or footing drains;
 - F. Flows from riparian habitats and wetlands;
 - G. Air conditioning condensate:
 - H. Lawn watering;
 - Individual car washing on residential properties;
 - J. Dechlorinated swimming pool discharges;
 - K. Street washing; and
 - Discharges or flows from fire fighting activities.
- (3) If any of the activities listed in Section 1096.03(a)(2) of this section are found by the County to be sources of pollutants to waters of the Commonwealth of Virginia, the Director shall so notify the person performing such activities and shall order that such activities be stopped or conducted in such manner as to avoid the discharge of pollutants into such waters. The failure to comply with any such order shall constitute a violation of this chapter.

(b) Inspections and Sampling.

- (1) The Director shall have authority to enter onto public and private property to carry out all inspection, surveillance and sampling procedures necessary to determine compliance and noncompliance with the conditions of the County's VPDES permit, and this chapter, including the prohibition of illicit discharges to the stormwater management system. The Director may sample stormwater outfalls or other components of the stormwater management system as may be appropriate in the administration and enforcement of this chapter.
- (2) If an illicit discharge as defined herein is detected, it shall be a violation of this chapter and shall be subject to the provisions of Section 1096.04.
- (3) If deemed necessary to prevent future occurrences of illicit discharge, the Director shall have the authority to require a stormwater pollution prevention plan from any person whose discharges cause, or may cause, a violation of this chapter.

(Ord. 03-15. Passed 10-20-03.)

1096.04 VIOLATIONS.

(a) Notice of Violations. If the County determines that there is an illicit discharge, a failure to maintain a private stormwater management facility in conformance with this chapter, or any other violation of this chapter, notice shall be served upon the property owner of record by registered or certified mail to the address of the property owner of record. The notice shall specify the measures,

as appropriate, needed to come into full compliance with this chapter and shall specify the time within which such measures shall be completed. Failure to comply within the time specified shall be deemed to be a violation of this chapter subject to the penalties outlined herein.

(b) Enforcement of Chapter; Penalty.

(1) <u>Criminal penalty</u>. Violation of the provisions of this chapter shall constitute a misdemeanor. Each day that a continuing violation of this chapter is maintained or permitted to remain shall constitute a separate offense. Violators shall be subject to a fine not exceeding one thousand dollars (\$1,000.00) or up to 30 days imprisonment for each violation, or both.

(2) Civil penalty.

- A. Any person who, intentionally or otherwise, commits any of the acts prohibited by Section 1096.03(a) shall be liable to the County for all costs of testing, containment, cleanup, abatement, removal and disposal of any substance unlawfully discharged into the stormwater management system.
- B. Without limiting the remedies that may be obtained under this section, the County may bring a civil action against any person for violation of this chapter. The action may seek the imposition of a civil penalty of not more than two thousand dollars (\$2,000.00) against the person for each violation.
- C. The County may petition the Circuit Court to enjoin a violation or a threatened violation of this chapter without the necessity of showing that an adequate remedy at law does not exist.
- D. In lieu of Section 1096.04(b)(2)B. of this section, above, with the consent of any person who has violated or failed, neglected or refused to obey the provisions of this chapter, the County may provide, in an order issued by the Director against such person, for the payment of civil charges for violations, in specific sums, not to exceed the limit specified in Section 1096.04(b)(2)B. of this section, above. Such civil charges shall be in lieu of any appropriate civil penalty, which could be imposed under Section 1096.04 (b)(2)B. of this section.
- E. Remedies cumulative. The remedies set forth in this section shall be cumulative, not exclusive, and it shall not be a defense to any action that one or more of the remedies set forth in this section has been sought or granted.

(Ord. 2-21. Passed 6-17-02.)

Summary of Selected Conditions of 883 Major Outfall Inspections for Year 3

Noted Condition	Quantity	Percentage
Dry Weather Flow	166	18.8%
Stained	121	13.7%
Oily Discharge	43	4.8%
Odor	59	6.7%
Floatables	154	17.4%
Suspected IDDE	127	14.4%
Material Integrity- Good	474	53.7%
Material Integrity- Crumbling	48	5.4%

July 27, 2007

Mr. Randy Williford Chief of Stormwater Management Department of General Services 211 Gibson Street, Suite 123 Leesburg, VA 20176



RE: Illicit Discharge Detection & Elimination Program Inspection Task Report

Dear Mr. Williford:

Introduction

In support of the County's Illicit Discharge Detection Elimination (IDDE) program, GKY & Associates (GKY) has completed the visual dry weather screening inspection of 633 structures identified as major outfalls located throughout the Urbanized Areas in the County. The IDDE inspections were conducted in accordance with the guidelines set forth in the Loudoun County Standard Operating Procedure for Illicit Discharge Inspection (SOP) and included a visual inspection, photo documentation, and scoring on a field inspection form during dry weather conditions. The results of our inspection efforts are summarized in this report and digital copies of the inspection forms and photos for each inspected outfall are provided in the attachments.

Outfall Categorization

In the process of performing the inspections, GKY staff found it useful to categorize the outfalls into one of seven different categories based on the conditions found at each outfall location. These categories are defined as follows:

Clear

Those outfalls designated as *Clear* presented no dry weather flow at the time of the site visit/inspection. Outfalls where the pipe was found to be wet but not flowing were included within this category.

Suspect

Outfalls categorized as being Suspect presented visible dry weather flows at the time of the visit. Measures were taken per the SOP guidelines to collect a sample for field testing when sufficient flow was in the outfall pipe. Again, outfalls were not categorized as Suspect if the outfall pipe was merely wet.

Flooded

The *Flooded* category was created to document both outfalls with a significant amount of water inundating the outfall pipe as well as those found to be completely submerged. Most outfalls fitting this description were typically found discharging into wet ponds and were only

categorized as *Flooded* if the pond water surface elevation appeared to be at a normal level based on the pond discharge structure (weir/orifice). As it is extremely difficult to determine dry weather flow under these conditions, GKY believed this category was necessary to adequately classify and document these outfalls.

Inaccessible

GKY created an *Inaccessible* category to document outfalls with conditions that prevented GKY staff from accessing the outfall location for inspection and documentation purposes. These conditions typically consisted of physical barriers (e.g. security fencing).

Maintenance

The Maintenance category represented outfalls where maintenance is required for adequate detection of dry weather flow. Some of the maintenance problems consisted of blockages within, adjacent to, or downstream of the outfall pipe. There were also occasions where outfalls that needed maintenance were heavily covered by vegetation, sediment, or debris and generally caused ponded water to be in the outfall pipe (less than 6") masking potential dry weather flows.

Not Found

Some of the outfalls listed for inspection could not be found in the field and were thus categorized as *Not Found*. It appeared that many of the outfalls in this category were unable to be located because of new construction in the same general area of the outfall. Additionally, some outfalls (mostly in the commercial areas) were likely unable to be located because they were buried in vegetation, debris, and sediment and not visible to the eye after a reasonable amount of searching.

Wet Pond/Dry Pond/Culvert

The final category that GKY created was Wet Pond/Dry Pond/Culvert. GKY determined that these outfalls should be categorized separately because the presence/absence of dry weather flow was heavily influenced by upstream control structures. These outfalls often had continuous flow during dry weather conditions and appeared to be designed as such rather than the result of any potential illicit discharges upstream. Sampling of these flows would also appear to be of limited use, if any, because of the likelihood of the samples to contain wet weather flow constituents as well.

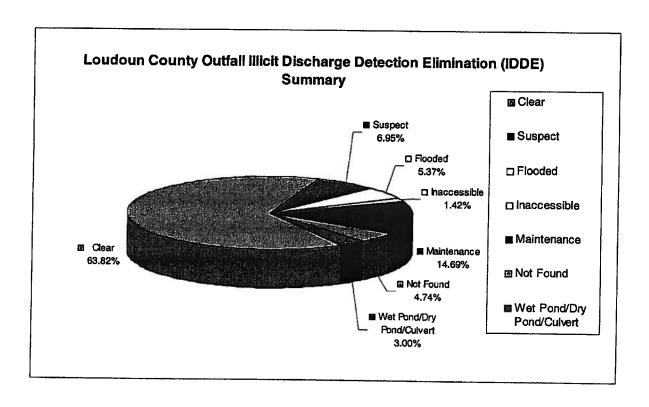
Dry Weather Inspection Results

The results of the inspections are summarized in both Table 1 and Figure 1 shown below. GKY staff visited/inspected a total of 633 outfalls throughout the County and found 404 (63.82%) of these outfalls to be *Clear* of dry weather flow and 44 (6.95%) outfalls to be *Suspect* of illicit discharges. The remaining 185 (29.22%) outfalls could not be dry weather screened for a variety of site-specific reasons and were categorized as previously described to document actual site conditions at these outfalls.

Table 1. Summary of Outfalls by Category

Category	Quantity	Percentage	
Clear	404	63.82%	
Suspect	44	6.95%	
Flooded	34	5.37%	
Inaccessible	9	1.42%	
Maintenance	93	14.69%	
Not Found	30	4.74%	
Wet Pond/Dry Pond/Culvert	19	3.00%	
Total	633	100.00%	

Figure 1. Graphical Distribution of Outfalls by Category



Follow-Up Sampling

Follow-up sampling of Suspect outfalls is in the process of being completed at this time and/or we are awaiting the analytical laboratory results for these samples. The results of this effort will be incorporated into an update of this report at a later date.

Report Attachments

GKY has included a DVD with this report that contains the following digital items:

- an Excel spreadsheet providing digital documentation of outfall inspections
- a digital copy of the completed inspection form for each outfall inspected
- photographs for each outfall inspected

Should you have any questions regarding the outfall inspection results presented in this report or on the attached DVD, please feel free to contact me.

Sincerely,

GKY & Associates, Inc.

Richard. M. Brawley
Director of Environmental Services

Casey M. Kight Planner

Illicit Discharge Enforcement Policy

Background

In order to comply with the Virginia Pollutant Discharge Elimination System (VPDES) permit requirements, the Loudoun County Board of Supervisors enacted Chapter 1096, Stormwater Management, of the Codified Ordinances of Loudoun County. In Section 1096.01(c)(5), "discharge" is defined as:

...to dispose, deposit, spill, pour, inject, dump, leak or place by any means, or that which is disposed, deposited, spilled, poured, injected, dumped, leaked or placed by any means.

And an "illicit discharge" is defined as:

...any discharge to the stormwater management system that is not composed entirely of stormwater, except discharges pursuant to either a VPDES permit or discharges resulting from fire fighting activities.

Section 1096.03, Discharges to the Stormwater Management System, makes most illicit discharges unlawful, spells out the exceptions, and provides Loudoun County with authority to inspect stormwater management facilities and sample the water in order to detect such discharges. Section 1096.04, Violations, defines notification requirements and penalties for unlawful illicit discharges.

Procedures

The Dept. of General Services discovers illicit discharges either through complaints from citizens or through its Illicit Discharge Detection and Elimination (IDDE) program. The purpose of this policy is to establish a consistent protocol to use in responding to and eliminating illicit discharges. An effective IDDE program is based on a recognition that a majority of the dischargers do not realize that the discharge is illegal and do not know the impacts to their local streams.

The minority of dischargers that do realize it is illegal, are usually seeking convenience or the avoidance of costs associated with proper disposal. Education about the law and the effects of the discharge is the first step in enforcement. Subsequent noncompliance is met with increasing enforcement actions from initial notices of violation to ultimate issuance of civil citations and injunctive relief to ensure the discharge is eliminated and remediated.

Step 1-Office Set Up

- Review information on either the complaint or inspection record to prepare for a site visit.
- Consult the GIS map and the stormwater database to determine the outfall structure number (FCTID).
- Print paper maps showing the flow paths to and from suspected outfalls in the area of the discharge.
- Determine if the site has a VPDES industrial discharge permit.
- Gather materials such as a chemical test kit, camera, forms, and maps

Step 2a-Site Visit-Obvious Discharge

- Approach all investigations as though the ultimate result will be a citation. Documentation is vital and may not be available at a later visit.
- Arrive at the site and perform reconnaissance to determine the possible source of the discharge.
- Take photographs of the suspected discharge.
- Seek owners or site contacts if potential discharges are noted.
- Instruct the owner of the source of the discharge, if apparent, about the law and suggest possible solutions to prevent future discharges.
- Obtain owner and site contact information: name, address, and phone number.

Step 2b-Site Visit-Hidden Discharge

- Locate the outfall where the discharge was reported to have occurred.
- Verify that the discharge is still occurring.
- Observe for evidence of past discharges around the outfall, i.e., staining, odor, and residue.
- Pull manholes and determine the location of the discharge.
- Follow procedures as in Step 2a. Obvious Discharges.

Step 3-2nd Site Visit--Warning Notice

- Observe that the discharge continues to pollute water ways of Virginia
- Issue Warning Notice
- Specify the measures needed to come into full compliance with the ordinance and a 14 day time frame within which such measures shall be completed or a *Notice of Violation* will be issued.

Step 4-3rd Site Visit--Notice of Violation

- Observe that the discharge is still occurring.
- Record evidence for possible enforcement action; take photos and samples.
- Find the owner or property manager and issue written notice of violation on a *Notice of Violation* form and have owner sign.
- Follow up by serving the *Notice of Violation* signed by the Chief of Stormwater Management Stormwater upon the property owner by registered or certified mail to the address of the property owner of record.
- As a part of the *Notice of Violation*, specify the measures needed to come into full compliance with the ordinance and the time frame within which such measures shall be completed.
- Assess the severity of the discharge and potential for movement off site and specify a 48 hour maximum compliance time
 - o Sample wording for notice of violation
 - You are in violation of Section 1096.03(a)(1)(B) of the Codified Ordinances of Loudoun County which states, "It shall be unlawful to: Discharge materials other than stormwater to the stormwater management system by spills, dumping or disposal without a VPDES permit"
 - You have 14 days to eliminate the discharge, failure to do so will result in the issuance of penalties in accordance with Section 1096.04(b)(2)B of the Codified Ordinances of Loudoun County

Step 5-4th Site Visit

- Make site visit after compliance time for Notice of Violation and observe that the discharge is still occurring.
- Record evidence for possible enforcement action; take photos and samples.
- Present evidence to the County Attorney for issuance of penalties.

Step 6-5th Site Visit

- One day before the trial date, with the permission of the County Attorney, make a site visit and document that discharge is still occurring.
- Coordinate evidence with County Attorney